

**California Board of Corrections  
Standards and Training for Corrections Program**

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**Juvenile Corrections Officer  
Job Analysis Report**

*Submitted by*  
**Psychological Services, Inc.**  
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## **PREFACE**

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This report describes the methodology and results of a job analysis conducted for the Juvenile Corrections Officer occupation in California. The purpose of the study was to identify the important job duties performed, and the abilities and other characteristics required for successful performance by Juvenile Corrections Officers statewide. The results of this study are intended to provide a basis for the design and subsequent development of a preemployment examination that will be offered by the California Board of Corrections to local corrections agencies for use in the selection of entry-level Juvenile Corrections Officers.

## **ACKNOWLEDGEMENTS**

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Board of Corrections staff, Shelley Montgomery, Selection Standards Manager, and Richard Sheppard, Ph.D., Research Consultant, were instrumental to the success of the project, facilitating several key project steps and lending their expertise to review and assist in the design and execution of the project.

PSI project staff included John Weiner, Project Director, Susan Stang, Ph.D., Consultant, Cathleen Callahan, Ph.D., Consultant, and Nelia Vasquez, Senior Analyst.

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## INTRODUCTION

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This report describes the methodology and results of a statewide job analysis of the **Juvenile Corrections Officer (JCO)** job, the first phase of an examination development project sponsored by the California Board of Corrections, Standards and Training for Corrections Program. This section of the report provides background information about the project.

### Background

The California Board of Corrections (BOC) is responsible for establishing minimum standards for the selection and training of local corrections and probation personnel, certifying training courses, and administering the Corrections Training Fund to help counties comply with the training standards.

BOC presently offers an entry-level examination for local corrections agencies to use in the selection of entry-level JCOs. The examination was originally developed and validated in 1987 (see *Validation Report – Juvenile Corrections Officer*, BOC, 1987) and has been used widely throughout California since that time.

In order to assist local corrections agencies in meeting their current recruitment and selection needs, BOC retained Psychological Services, Inc. (PSI) to develop and validate a new selection examination for the entry-level JCO job. As a first step in this effort, PSI conducted a statewide job analysis to determine the work performed and requirements for successful performance for JCOs throughout the state. The job analysis was conducted in cognizance of professional standards (NCME, APA, AERA, 1999) and principles (SIOP, 1987), as well as legal guidelines (EEOC, et al, 1978).

### Objectives

The overarching goal of the job analysis was to build a foundation for the development of a selection examination that would be applicable to, and valid for all JCO positions in California. JCOs work in 50 agencies throughout the state, varying in size. To ensure that the job analysis would be representative of JCO work statewide, it was important to include and involve a variety of agencies and positions when defining core job requirements. As a result, a carefully stratified sample of 25 agencies was selected to participate in the job analysis.

To this end, the primary objective of the job analysis was to identify the work performed, and the knowledge, skills, abilities, and other characteristics (KSAOs) that are important for JCO positions statewide, regardless of agency or setting. This entailed examining the frequency of job task performance and the importance of job tasks and KSAOs statewide and within categories of agency size, and identifying a set of “core” tasks and KSAO requirements.

## METHOD

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### Job Analysis Overview

A variety of techniques and methods were used to identify and define JCO job responsibilities and requirements, including: (1) defining the study population, (2) reviewing existing job descriptive information, previously-used job analysis instruments, and the psychological literature; (3) conducting site visits/job observations; and (4) using a specially developed job analysis questionnaire to gather job information from a representative sample of agencies

Specifically, census information provided by BOC was used to define the study population of JCOs. Then existing job descriptions were collected for the target job and used to identify typical job responsibilities and to define the breadth and scope of work. The review of the psychological literature aided in identifying abilities and other characteristics predictive of performance in a variety of jobs, as well as jobs similar in focus and function to the target job. Site visits allowed for the observation of the work context and work behaviors. On the basis of the reviews and site visits, draft job analysis questionnaires (JAQs) containing lists of work behaviors and KSAOs were developed. Focus groups of job incumbents and supervisors reviewed the lists for accuracy, comprehensiveness, clarity, and applicability. Suggestions and modifications were incorporated, as appropriate. Final versions of two JAQs (one to be completed by incumbent JCOs and one to be completed by supervisors of JCOs) were then developed from all previously acquired information. The questionnaires were administered to a representative sample of JCO incumbents and supervisors to gather detailed job descriptive data and to identify those job requirements that are common throughout the state. Specifically, the responses to the questionnaires were used to identify: (1) important and commonly performed work tasks, and (2) the abilities and other characteristics needed at the time of entry for successful job performance in a majority of positions and agency settings.

More detailed descriptions of the job analysis procedures and instruments are provided in the following sections.

### Study Population

The job analysis focused on entry-level JCOs employed by local corrections facilities (e.g., Juvenile ranches, camps, or halls). For purposes of the project, entry-level JCOs were defined as those who:

- had completed the probationary (training) period;
- were working independently on the job as a Juvenile Corrections Officer (that is, in a position which involves directly supervising/directing the behavior of juveniles in an inmate facility);
- were performing those duties typically performed by Juvenile Corrections Officers in their agency; and
- were NOT working in a position which primarily involves performing specialized, or atypical work activities.

Census information regarding the number of JCOs employed by local corrections agencies in California was provided by BOC from annual training records. This information was used to define the JCO population from which the job analysis sample was selected (as described later in this report). The

population of agencies and incumbent JCOs is described in Tables 1 and 2, respectively.<sup>1</sup> For purposes of establishing the target population, which the job analysis would be designed to represent, the percentages of incumbents and agencies falling in each of the size/location categories were averaged, resulting in the values reported in Table 3. The values reported in Table 3 reflect a balanced approach to defining the target population in an effort to acknowledge both large agencies (which employ most of the incumbent JCOs) and small agencies (which constitute the majority in the state).

**Table 1**  
**JCO Agency Population**

Location	Size						Total	
	Small		Medium		Large			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Bay	5	10%	8	16%	-	-	13	26%
Central	3	6%	6	12%	-	-	9	18%
North	12	24%	-	-	-	-	12	24%
Sacramento	6	12%	2	4%	-	-	8	16%
South	1	2%	2	4%	5	10%	8	16%
TOTAL	27	54%	18	36%	5	10%	50	100%

**Table 2**  
**JCO Incumbent Population**

Location	Size						Total	
	Small		Medium		Large			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Bay	66	1%	1070	17%	-	-	1136	18%
Central	57	1%	629	10%	-	-	696	11%
North	172	3%	-	-	-	-	172	3%
Sacramento	99	2%	315	5%	-	-	414	7%
South	15	.02%	180	3%	3594	58%	3789	61%
TOTAL	409	7%	2194	35%	3594	58%	6197	100%

<sup>1</sup> Agency size categories were defined as follows: Small = 30 or fewer incumbent JCOs employed; Medium = 34-269 incumbents; and Large = 270 or more incumbents. The size categories were defined by BOC staff in consideration of: (a) degree of job specialization associated with larger vs. smaller agencies, and (b) naturally occurring breaking points in the distribution of the number of incumbents employed across agencies.



**Table 3**  
**JCO Target Population:**  
**Average of Agency and Incumbent Counts**

Location	Size			Total
	Small	Medium	Large	
Bay	5.50%	16.50%	-	<b>22%</b>
Central	3.50%	11%	-	<b>14.50%</b>
North	13.50%	-	-	<b>13.50%</b>
Sacramento	7%	4.50%	-	<b>11.50%</b>
South	1%	3.50%	34%	<b>38.50%</b>
<b>TOTAL</b>	<b>30.50%</b>	<b>35.50%</b>	<b>34%</b>	<b>100%</b>

### **Job Analysis Questionnaire Development**

Comprehensive questionnaires were developed to gather detailed information about the JCO job, including the tasks performed, equipment used, and knowledge, skills, abilities, and other characteristics needed for successful job performance. To capitalize on the unique expertise and perspective of incumbents versus supervisors, two JAQs were developed, one tailored to each perspective. The ratings provided by each of these groups were designed to tap into the particular area of expertise that they possess. Specifically, incumbents were asked to make ratings that focused on job duties, by rating the frequency with which they performed the work tasks and used the equipment. Supervisors' ratings would draw upon their familiarity with the components of successful job performance. They would, therefore, be rating how important each work task and KSAO was to successful performance as a JCO, and whether it was necessary to possess a KSAO upon entry into the job.

The JAQs also provided a means to gather and compare input from a variety of JCOs, representing the breadth of job assignments, agencies, and geographic locations. To create the JAQs, several sections and components were developed, including a section to obtain background or descriptive information about the respondent, the job tasks, the equipment used, the KSAOs required, and the rating scales to be used to record responses.

Further details regarding the development of the JAQs are provided below.

#### **Preliminary Lists of Tasks, Equipment and KSAOs**

As an initial step towards developing an inventory of job tasks and requisite KSAOs for inclusion in the JAQ, PSI reviewed a variety of existing job information, including job descriptions, training manuals, and job analysis questionnaires used in previous, similar projects. Specifically, the review included the following documents:

- Juvenile Corrections Officer – STC Standards and Training Corrections Program Core Training Manual (1994)
- Juvenile Corrections Officer – STC Standards and Training Corrections Program Knowledge/Skill Maps (1994)
- Juvenile Corrections Officer – STC Standards and Training Corrections Program Conditioning Training Manual (1994)
- Job Analysis Questionnaire for Correctional Personnel – Juvenile Programs (1993)

- 60 job descriptions from local corrections agencies throughout California
- Selection and Training Standards Re-validation Project, Phase I, Statewide Core Job Tasks Re-validation (July, 1989)
- Statewide Job Analysis of Three Entry-Level Corrections Positions for the California Board of Corrections Standard and Training in Corrections Program (May, 1987)

Development of the preliminary task and equipment lists began with the JAQ used in previous JCO job analyses conducted for the California Board of Corrections (i.e., Job Analysis Questionnaire for Correctional Personnel – Juvenile Programs, 1994). Specifically, task and equipment lists from this study were reviewed for comprehensiveness by comparing them to the documents listed above and adding tasks and equipment items that were not represented in the original JAQ's.

Three main sources of information were reviewed and integrated to develop the initial list of KSAOs. First, the KSAOs that were identified as necessary for successful performance in previous JCO job analysis studies were reviewed. Second, current job descriptions were closely reviewed, and KSAOs listed in these were considered for inclusion in the JAQ. Third, the research literature was reviewed to identify those KSAOs which have proven to be important for, and predictive of successful job performance for this and/or similar jobs (Barrick & Mount, 1991; Ones, Viswesvaran, & Schmidt, 1993; Raymark, Schmit, & Guion, 1997; Costa & MacRae, 1992).

The resulting inventories were further refined on the basis of the site visits and focus group sessions described in the following sections.

### **Site Visits**

To further clarify job duties and to better understand the context in which the JCO job is performed, PSI representatives visited a sample of local corrections facilities to observe and informally talk with incumbent JCOs as they performed the job. The work sites included agencies of different sizes and focus. Table 4 summarizes the dates and locations of each site visit. On the basis of these visits, PSI refined the preliminary lists of tasks, equipment items, and KSAOs.

**Table 4**  
**Site Visits**

<b>Date</b>	<b>Facility/Agency</b>	<b>Position(s) Observed</b>
June 28, 2001	Sacramento County Juvenile Detention Center	Juvenile Counselor
July 16, 2001	Yolo County Probation Department	Detention Officer

### **Development of Rating Scales and Instructions**

Ratings scales were developed for use in the JAQs to enable JCO incumbents to indicate the frequency with which they perform the listed tasks and use the various equipment items, and to enable JCO supervisors to indicate the importance of the tasks and KSAOs, as well as the extent to which the KSAOs are necessary before hire. The scales were based largely upon scales that have been widely used by PSI and BOC in previous large-scope job analyses, and are consistent with traditional job analysis practices.

The rating scales and instructions for using them were developed through an iterative process that began with draft versions generated by PSI project staff, and subsequent reviews and minor modifications by

BOC staff, subject matter experts (JCO supervisors and incumbents) in a focus group setting, and pilot administration of a JAQ administered to several JCO incumbents and supervisors. Table 5 outlines the questions addressed by the rating scales. The final resulting scales and instructions are shown later in this report (see Final JAQs).

**Table 5**  
**Overview of JAQ scales**

<b>JCO Incumbent JAQ rating scales</b>	<b>JCO Supervisor JAQ rating scales</b>
<b>Task Frequency:</b> How often do you perform this work task?	<b>Task Importance:</b> How important is this task to overall job performance?
<b>Equipment Frequency:</b> How often have you used this equipment in the past year?	<b>KSAO Importance:</b> How critical is this KSAO for successful job performance?
	<b>KSAO Necessary at Entry:</b> To what extent is it necessary for an entry-level JCO to possess this KSAO before hire?

An additional section of each JAQ was drafted to obtain background information regarding participants completing the surveys so that the representativeness of the job analysis sample could be examined and documented. To develop the background information questions, PSI identified standard demographic questions used in prior job analyses and also considered the purpose of the study and characteristics that could possibly differentiate job duties.

### **Focus Group Meeting**

A focus panel of subject matter experts (SMEs) was convened to review and refine the draft lists of tasks, equipment, and KSAOs, as well as the rating scales, instructions, and background questions. SMEs were carefully selected to participate in the focus group meeting representing the JCO target population. To ensure that both perspectives were represented, approximately half of the meeting participants were incumbents while half were supervisors. Finally, an attempt was made to ensure that focus group participants varied by race, sex, and shift worked.

**Sample.** A total of 12 SMEs were selected to participate in the meeting. To identify the meeting participants, this target number of focus group participants was multiplied by the average percentages that best represent the population (described earlier in Table 3); the resulting values represented the number of focus group participants to be chosen from each agency size and location category. The resulting focus group sampling plan is given in Table 6. BOC staff identified specific agencies within the specified categories and contacted them to obtain focus group participants.

**Procedure.** The focus group meeting was held on July 18, 2001, in Sacramento, CA. Twelve incumbents and supervisors representing JCOs from across the state, matching the sampling plan specifications, met for a one-day meeting. In addition to the SMEs, two representatives from PSI and two representatives from the Board of Corrections were present during the meeting. The names, agencies, and demographic characteristics of the meeting participants are summarized in Appendix A.

The meeting began with a discussion of the project background, with PSI representatives explaining the goal of the project, project work completed to-date, and the purpose of the meeting. The need to focus on entry requirements was also explained, and the meaning of the term “entry-level” was discussed. SMEs were then given copies of the draft job analysis questionnaires that included the lists of work tasks,

equipment, KSAOs, rating scales, and background information questions. The tentative and proposed job requirements were reviewed and discussed, and all approved changes were made at the meeting.

**Table 6**  
**Sampling Plan for Focus Group Meeting Participants**

Location	Size						Total	
	Small		Medium		Large			
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Bay	1	8%	2	17%	0	-	3	25%
Central	0	-	2	17%	0	-	2	17%
North	2	17%	0	-	0	-	2	17%
Sacramento	1	8%	0	-	0	-	1	8%
South	0	-	0	-	4	33%	4	33%
TOTAL	4	33%	4	33%	4	33%	12	100%

#### Background Information Review

The background information section was reviewed and discussed, with only minor modifications being made to terminology, phrasing, and certain response categories.

#### Work Task Review

Considerable time was devoted to reviewing the work tasks. The tasks had been grouped together into categories that represent major work activities. To begin, SMEs first reviewed the major categories to confirm that the major activities were reasonable, appropriate, important, and comprehensive. SMEs were then asked to review the more specific work tasks.

When reviewing the work tasks, the SMEs were instructed to focus on:

- Generalization of the language used. That is, are the phrasing and terminology understandable across all settings, agencies, and assignments (or do they contain terms that are used only in certain agencies)?
- Currency of the tasks/duties. Are all tasks still performed, or are some outdated due to job restructuring or outdated technology?
- Comprehensiveness of the task list. Are all of the substantive tasks that are associated with a particular major activity listed? Are all tasks listed with the most appropriate major activity, or should some be reallocated?

All comments and suggestions were discussed and agreement was reached on the best phrasing and allocation. In addition, if a significant and important task was identified that was applicable to at least one agency represented by the SMEs, it was added to the job analysis questionnaire in spite of its potentially limited applicability. This approach ensured that the list of work tasks included on the job analysis questionnaire would be as comprehensive as possible.

#### Equipment Review

A similar review of the equipment section was conducted. The focus of this review was on the comprehensiveness and currency of the equipment listed. Once again, modifications were made as necessary.

### KSAO Review

Finally, the KSAOs were reviewed in detail, with abilities and other characteristics reviewed first, followed by a brief review of knowledge and skills.

Abilities and other characteristics represent general and enduring traits of employees and underlying dimensions of performance. As a result, although SME input was obtained and considered in the identification and definition of the abilities and other characteristics, primary emphasis was given to the research literature, theory, and findings. Therefore, the focus of the review of this section and the discussion and deliberation that followed were slightly different than the review held for the other sections.

Each ability/other characteristic was reviewed to see if the wording and/or intent of the definition were clear. Discussions were held to identify the source of any misunderstandings or the different ways it could be interpreted, and changes were noted. SMEs were then asked to review the entire list of abilities/other characteristics and discuss whether the list was comprehensive, or if any of the listed abilities/other characteristics were clearly not necessary for the JCO job.

Knowledge and skills were reviewed next. Knowledge and skills are generally taught during training or otherwise acquired after an incumbent has begun performing the job of interest (unless there are prerequisites). We therefore anticipated that the selection system developed from the job analysis would primarily focus on abilities and other characteristics relevant to preemployment selection. Knowledge and skills were included on the Supervisor JAQs in order to assist BOC in gathering information for use in reviewing and updating training curricula.

To ensure that the list of KSAOs was comprehensive, SMEs were asked to review the list of knowledge and skills and suggest any modifications to wording or note any additional knowledge/skills not already listed.

### Abilities and Characteristics

Following the SME meeting, the resulting list of abilities and other characteristics was reviewed to ensure that it was concise, comprehensive, and useful for purposes of examination development. The abilities and characteristics were first reviewed for redundancy and several abilities were integrated into fewer broad-based abilities. These changes were made on the basis of PSI's own review and suggestions made by BOC staff. In addition, a number of physical/psychomotor abilities were added to assist BOC in gathering information relevant to physical training curricula.

The non-cognitive "other characteristics" were reviewed and modified on the basis of a review of psychological literature including research and meta-analyses by Barrick and Mount, 1991; Ones, Viswesvaran, and Schmidt, 1993; Raymark, Schmit, and Guion, 1997; Tett, Jackson, and Rothstein, 1991; and Costa and MacRae, 1992. Using a Big-5 framework, the characteristics resulting from the initial SME work were mapped onto personality taxonomies and constructs that have proven to be measurable and associated with successful performance in a wide variety of jobs. The revised list of abilities and other characteristics was sent to BOC for review and comment. Feedback was received and discussed in detail, and further revisions were made until consensus was achieved and final changes were agreed upon.

A total of 116 KSAOs were identified for inclusion in the JAQ. These included 35 abilities and characteristics which were the focus of this project, and which are presented in Table 7.

**Table 7**  
**JCO Abilities and Other Characteristics**

1.	Listening Comprehension. The ability to understand information, procedures, or instructions spoken in English.
2.	Oral Communication. The ability to convey clear and concise information in spoken English, providing information in a manner that can be understood by the listener.
3.	Reading Comprehension. The ability to understand materials, procedures, or instructions written in English. This ability involves reading sentences and paragraphs to identify and interpret facts and relevant information.
4.	Written Communication. The ability to convey clear and concise information in written English, using correct spelling, grammar, and punctuation to produce documents that can be understood by the reader.
5.	Information Ordering. The ability to correctly follow a given rule or set of rules to arrange things or actions (e.g., sentences in a paragraph, steps in a procedure) in a certain order.
6.	Reasoning. The ability to analyze and evaluate information to arrive at a correct conclusion. It includes making judgments regarding the accuracy of information, applying rules and principles, and combining pieces of information to come up with logical answers.
7.	Basic Math. The ability to add, subtract, multiply, and divide whole numbers.
8.	Vigilance. The ability to remain alert and not become restless during periods of slow or repetitive work activity (e.g., monitoring).
9.	Selective Attention. The ability to concentrate on a task and not be distracted.
10.	Perceptual Speed and Accuracy. The ability to quickly and accurately compare letters, numbers, objects, pictures, or words presented in written or visual form in order to identify inaccurate, inconsistent, or missing information.
11.	Multi-tasking. The ability to quickly and accurately process multiple types of information and/or perform multiple tasks, shifting back and forth between tasks and/or sources of information.
12.	Applied Memorization. The ability to recall information such as procedures and rules, faces, identification marks, and the order in which events occurred.
13.	Strength. The ability to use muscle force in order to lift, push, pull, or carry objects.
14.	Flexibility. The ability to bend, stretch, twist, or reach out with the body, arms, or legs.
15.	Stamina. The ability to exert oneself physically without getting out of breath.
16.	Assertiveness. The tendency to take charge of situations or groups, to influence or motivate others; to speak-up, be candid, and confront people when necessary, without hesitation.
17.	Emotional Control. The tendency to remain calm and in control, and not overreact or express negative emotions (e.g., anger) in adverse, stressful, life-threatening, or time-critical situations.
18.	Stress Tolerance. The ability to perform effectively under stressful conditions and to cope with prolonged exposure to job stressors (e.g., time pressure, emergencies, threats, physical altercations).
19.	Attention to Detail. The tendency to be thorough and to carry out tasks with a concern for the inclusion and correctness of details.
20.	Self-Assurance. The tendency to interact confidently with individuals or groups at all levels; to not be easily fooled or persuaded into changing course of action; and to have confidence in one's ability to be effective.
21.	Decisiveness. The tendency to make well-reasoned decisions in a timely manner, sometimes in situations where there are no standard procedures.

**Table 7 Contd.**  
**JCO Abilities and Other Characteristics**

22.	Friendly Disposition. The tendency to be courteous, cooperative, tactful, patient and friendly to others (e.g., coworkers, supervisors, and the public).
23.	Adaptability. The willingness and ability to adapt to unanticipated problems or conflicts; accept changes (e.g., assignments or procedures); and change roles based on one's assessment of the situation.
24.	Positive Attitude. Demonstrating a positive, upbeat attitude when interacting with others (not overly cynical, suspicious or distrustful of others); displaying an interest and enjoyment in the job by putting energy into work; accepting constructive criticism.
25.	Team Orientation. The desire or willingness to establish and maintain effective working relationships with others; to share information, provide assistance, put group goals ahead of personal goals and to do one's fair share in a group effort; not allowing personal differences affect working relationships.
26.	Interpersonal Sensitivity. Being genuinely concerned about the safety and welfare of others; attempting to understand and consider others' needs, motives, concerns, feelings, and perspectives.
27.	Gregariousness. Having a preference for being with people.
28.	Dependability. The tendency to be reliable (e.g., maintaining punctual, reliable attendance records); to take ownership for work performed and ensure work is completed accurately and on time.
29.	Attitude Toward Safety. A willingness and tendency to proceed in a careful, cautious, or prudent manner in potentially dangerous situations.
30.	Integrity. The tendency to be fair, honest, impartial, and straightforward in dealing with others; to honor commitments; to be trustworthy; to take responsibility for failures and share credit for successes; to use appropriate discretion and be sensitive to confidentiality; and to demonstrate high ethical standards.
31.	Conformance to Rules and Regulations. The tendency to perform work in compliance with laws, rules and regulations; to accept and conform to accepted standards of conduct and the authority structure of the organization.
32.	Tolerance of Work Conditions. The willingness to tolerate physically unpleasant work environments or conditions (e.g., long shifts; confined work areas; interacting with criminals, many of whom have committed heinous crimes).
33.	Achievement Motivation/Initiative. An ambition and desire to exert the effort needed to attain goals; being determined and persistent; having a strong work ethic, and a tendency to work hard and do one's best; to proceed on assignments without waiting to be told what to do; and work diligently without supervision.
34.	Willingness to Learn. The willingness to acquire new skills and knowledge, seek out and use feedback to improve performance, learn from own and others' experiences, and apply learning to new situations; the ability to review one's perceptions, attitudes, behaviors, and emotions to make constructive changes that improve performance.
35.	Objectivity/Tolerance. A willingness to interact with people from a diverse population in an unbiased fashion, without letting personal prejudices affect interactions with others.

#### **Follow-up Review and Pilot Administration**

Incumbent and supervisor versions of the JAQ were assembled and distributed to several of the focus panel members for follow-up review to ensure that the above-described changes were acceptable and clear. Both JAQs included the background section (with slightly modified questions to reflect the difference in position) and the job tasks. As mentioned previously, the response scales also varied – incumbents rated frequency while supervisors rated importance. The incumbent JAQ also included equipment, while the supervisory version included KSAOs.

Each SME was sent a packet containing:

- A copy of the incumbent JAQ;
- A copy of the supervisor JAQ;
- A survey with 10 specific questions about the JAQ; and
- A postage-paid, addressed envelope to return the JAQ and survey.

Two SMEs participated in the follow up review. Both confirmed that the majority of the tasks performed and the KSAOs needed on the job were included in the JAQs. Specifically, one SME indicated that 50-70% of the tasks typically performed on the job were represented, and one indicated that the JAQs contained more than 90% of the tasks typically performed.

Two written comments were received. Of these, one suggested that the task importance rating instructions be further clarified, and one suggested a modification for an item of equipment. The JAQs were modified to incorporate these suggestions.

**Pilot.** The revised JAQs were administered to a second group of SMEs identified by the BOC. The SMEs were asked to complete the JAQ and then to provide feedback on the clarity of directions and ease of understanding. They were also encouraged to comment on any typographical errors, missing information, or poorly worded statements.

Based on the results of this pilot test, the scale points for one of the rating scales (“Necessary at Entry”) on the supervisor JAQ were revised to clarify the difference between the two ratings points. In addition, the instructions for the KSAO section of the supervisor JAQ were expanded to include additional clarification and guidance about the factors to consider in making the importance and necessary at entry ratings.

### **Final JAQs**

Once all agreed-upon revisions had been made, final versions of the incumbent and supervisor JAQs were assembled, as described below.

**Incumbent JAQ.** The final version of the JCO Incumbent JAQ is shown in Appendix B and summarized below. The JAQ included the following three sections: I. Background Information, II. Work Tasks, and III. Equipment.

The background information section (Section I) included 17 questions eliciting demographic (e.g., sex, race) and job-specific (e.g., work experience, type of juveniles supervised) information.

In Section II, Work Tasks, respondents were asked to describe the work they perform in their current job assignment. Specifically, respondents were asked to review 294 work tasks within 15 major activity areas, including:

1. Booking, Receiving, and Releasing
2. Admission/Orientation/Classification
3. Escorting/Transporting
4. Supervising Juveniles – Daily Care and Custody
5. Supervising Juveniles – Recreational or Leisure Time Activities
6. Supervising Juveniles – Work Details
7. Casework/Counseling
8. Record Keeping and Report Writing
9. Searching and Securing
10. Supervising Non-Detainee Movement and Visitors



11. Emergencies
12. Communicating
13. Physically Demanding Tasks
14. Miscellaneous Tasks
15. Supervising other Detention Facility Personnel

Incumbents rated each task using the following rating scale:

<b>Frequency – How often do you perform this work task?</b>	
9	More than once a day
8	About once a day
7	Several times a week
6	About once a week
5	Two or three times a month
4	About once a month
3	Several times or less in the past year.
2	I have performed this task in this agency, but not in the last year.
1	This task is part of the job, but I have never performed it at this agency
0	Never – It is not part of the job.

In the third section incumbent JCOs were asked to rate the frequency with which they use 71 different equipment items, using the rating scale below:

<b>Frequency - How often have you used this equipment in the past year?</b>	
3	Very Often
2	Often
1	Occasionally
0	Never

**Supervisor JAQ.** The final Supervisor JAQ, also shown in Appendix B, contained the following three sections: I. Background Information, II. Work Tasks, and III. KSAOs.

The Background Information Section contained 18 questions similar to those in the incumbent JAQ, with revisions made as appropriate to reflect the differences in job levels.

The focus of the Work Tasks section (Section II) in the supervisor questionnaire was on the importance of each work task. Supervisors were asked to rate the importance of each of the 294 tasks using the following rating scale:

<b>Importance - How important is this task to overall job performance?</b>	
5	Critically Important
4	Very Important
3	Important
2	Of Some Importance
1	Of Little Importance
0	Not Performed by JCOs in my agency

Finally, in Section III, supervisors used the following two scales to rate the 116 KSAOs:

<b>Importance - How critical is this KSAO for successful job performance?</b>	
5	Critically Important
4	Very Important
3	Important
2	Of Some Importance
1	Of Little Importance
0	Not Important for Successful Job Performance

<b>Necessary at Entry - To what extent is it necessary for an entry-level JCO to possess this KSAO before hire?</b>	
1	Necessary Before Hire. Candidates must possess a substantial amount of this KSAO before hire. This KSAO is not developed primarily through entry-level training or on-the-job experience.
0	Not Required Before Hire. Little or none of this KSAO is necessary before hire. This KSAO is developed primarily through training and/or on-the-job experience.

## **Data Collection**

### **Survey Sample**

Early in the project, PSI and BOC made the joint decision to conduct the data analysis so that each agency's ratings would have equal weight in the overall analysis (i.e., agency was the unit of analysis in the study). While more data would be collected in larger agencies (to ensure that the greater variety of positions was represented) it was determined that all data collected from an agency would be combined to form a single rating.

Because it would be impractical to contact/survey every person who holds or supervises the target job at all agencies, we developed a detailed sampling plan to be used when choosing project participants. The sampling plan ensured that the variety of agency types, job assignments, and geographic locations were represented in the job analysis. Agencies were selected to participate in the job analysis in proportion to the size and region categories in the target population.

To ensure that a representative sample of incumbents and supervisors could be surveyed in a timely and cost-efficient manner, it was decided that approximately one-third of the JCO agencies (e.g., 17) would be sampled to participate in the administration of the JAQ. Accordingly, the target population percentages (shown in Table 3) were multiplied by the target number of agencies, with numbers rounded where appropriate. Slight adjustments were made as needed, making sure that the overall sample was proportional by size and region (even if it was not possible to make the sample proportionate within each individual cell).

Next, the number of incumbents and supervisors to be chosen from each agency was identified. It was decided that completed JAQs should be received from 20% of the incumbents and 50% of the supervisors in the selected agencies; to ensure this, agencies were over sampled by 10%, so that ultimately 22% of incumbents and 55% of incumbents within each agency would be asked to complete a JAQ. With this plan, larger agencies would have more incumbents and supervisors completing questionnaires. Over sampling the larger agencies helped to ensure that the range of job duties performed in larger agencies was represented.

BOC representatives selected the specific agencies to receive the JAQs by considering: (1) the number of agencies to select within each sampling category, and (2) the target number of JAQs to be completed.

Minimum and maximum numbers of JAQs to be distributed within an agency were also identified. It was determined that no fewer than 5 and no more than 40 supervisors or 50 incumbents would be sampled from any given agency.

As a result, 17 agencies were selected to participate in the JAQ administration, where a total of 406 incumbent and 231 supervisor JAQs were to be distributed. Table 8 describes the agency JAQ sampling plan. The sample was highly representative of the target population, as shown in Table 9.

**Table 8**  
**Agency Sampling Plan for JAQ Administration**

Agency	Number of JAQs	
	Incumbent	Supervisor
1. Butte Probation	5	5
2. Contra Costa Probation	24	8
3. Imperial Probation	5	5
4. Kern Probation	20	7
5. Los Angeles Probation	100	80
6. Napa Probation	5	5
7. Placer Probation	5	5
8. Riverside Probation	32	14
9. Sacramento Probation	34	24
10. San Bernardino Probation	50	21
11. San Diego Probation	50	23
12. San Luis Obispo Probation	6	5
13. San Mateo Probation	19	5
14. Santa Barbara Probation	16	8
15. Shasta Probation	5	5
16. Solano Probation	12	5
17. Tulare Probation	18	6
<b>Total</b>	<b>406</b>	<b>231</b>

**Table 9**  
**Comparison of Target Sample to Population**

Location	Size						Total	
	Small		Medium		Large			
	Population	Sample	Population	Sample	Population	Sample	Population	Sample
Bay	5.5%	5.9%	16.5%	17.6%	-	-	22.0%	23.5%
Central	3.5%	5.9%	11.0%	11.8%	-	-	14.5%	17.6%
North	13.5%	11.8%	-	-	-	-	13.5%	11.8%
Sacramento	7.0%	5.9%	4.5%	5.9%	-	-	11.5%	11.8%
South	1.0%	5.9%	3.5%	5.9%	34.0%	23.5%	38.5%	35.3%
TOTAL	30.50%	35.3%	35.50%	41.2%	34.0%	23.5%	100%	100%

### **JAQ Distribution**

BOC staff contacted each participating agency and established a local project coordinator who would be responsible for receiving, distributing, and returning JAQs. The local coordinators were given an overview of the purpose and importance of the project, as well as the general process that would be undertaken.

The JAQs were sent to the agency coordinators in October 2001. Included with the JAQs were complete and detailed instructions and materials for administration. The JAQs were administered with the confidentiality of the study participants in mind, as individual envelopes were provided to enable them to submit their completed JAQs with complete discretion.

Each agency coordinator received the following materials:

- One JAQ packet per participant (see below);
- A letter of explanation describing the purpose of the project, as well as procedures to be followed in selecting the sample and distributing and returning the questionnaires;
- The targeted number of incumbents and supervisors to complete the JAQ (i.e., as shown in the sampling plan in Table 8);
- Extra copies of the questionnaires and response sheets;
- A log sheet, to aid in tracking the distribution and receipt of JAQs; and
- A postcard, to be sent to PSI to acknowledge receipt of the packet of materials

Appendix C contains the cover letter, procedures, guidelines, and supporting materials that were sent to the agency coordinators.

The individual JAQ packets given to selected participants contained:

- A job analysis questionnaire;
- A response sheet, to be used to record JAQ ratings; and
- An envelope, stamped “CONFIDENTIAL” for the return of the completed JAQ.

The letter of explanation and enclosed procedures included guidelines to the coordinators to assist them in selecting incumbent JCOs and supervisors to complete the JAQ. Some of the key points were to:

- Represent the variety of entry-level positions;
- Select employees who have proven to be effective on the job, and
- Reflect the diversity of the incumbent population (in terms of racial/ethnic groups, sex, and age).

The coordinators were asked to track the return of the JAQs and to follow up to ensure that all were completed by the deadline. In addition, the BOC project manager kept in close contact with the agency coordinators, and was available to answer questions as they arose.

### **JAQs Received and Retained for Analysis**

**Return Rate.** A total of 564 JAQs were returned by January 2002, for a response rate of 89%, with 16 of the 17 agencies represented. The JAQs distributed and returned by JCO incumbents and supervisors are summarized in Table 10.

**Table 10**  
**JAQs Returned and Retained for Analysis**

Number of JAQs					
Incumbent			Supervisor		
Distributed	Returned	Retained	Distributed	Returned	Retained
406	368	366	231	196	195
	91%	90%		85%	84%

**Data Verification.** Prior to conducting the analyses, the completed JAQs were reviewed and checked for accuracy and reasonableness, and three JAQs were eliminated from the study, as described below.

**Incumbent JAQs.** Incumbent JAQs were eliminated from the data analysis if:

- There was little evidence that the incumbent currently worked as a JCO. That is, the respondent failed to answer either of two background questions, which would indicate he/she was a JCO, and indicated that fewer than 50% of the tasks listed in the JAQ were a part of their job.
- The JAQ was incomplete. Specifically, if the respondent failed to rate at least 50% of the tasks on the JAQ it was excluded from substantive analyses.
- The respondent's ratings indicated that fewer than 20% of the tasks on the JAQ were a part of their job.
- The ratings/responses were the same across all tasks. The lack of variability in responses suggests that the respondent might have been making ratings without careful thought or consideration.

Of the 368 incumbent JAQs returned, one was eliminated because the incumbent rated fewer than 50% of the tasks on the JAQ, and one was eliminated because the incumbent indicated that he/she performed fewer than 20% of the tasks on the JAQ, resulting in a total of 366 JAQs that were useable.

**Supervisor JAQs.** Supervisor JAQs were eliminated from the data analysis if:

- Their supervisory responsibilities did not give them an opportunity to know the JCO job in detail. That is, the respondent indicated that he/she did not currently supervise any JCO incumbents and did not have at least one year of experience supervising incumbents.
- The JAQ was incomplete. Specifically, the respondent rated fewer than 50% of the tasks on the JAQ.
- The JAQ was not relevant to the jobs they supervised, in that the incumbents they supervise performed fewer than 20% of the tasks on the JAQ.
- The ratings/responses were suspect (e.g., if all of their task ratings were the same).

Of the 196 supervisor JAQs returned, one was eliminated because the supervisor rated fewer than 50% of the tasks on the JAQ, resulting in a total of 195 useable Supervisor JAQs.

Because of the extremely high survey return rates (in excess of 80%) and the very small number of unusable surveys, we had a high level of confidence that the final analysis sample closely mirrored the intended target population.

## ANALYSIS AND RESULTS

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### Characteristics of the Job Analysis Sample

Demographic characteristics of the JCO incumbents and supervisors comprising the analysis sample are shown in Tables 11 and 12, respectively. Tables 13 and 14 summarize respondents' relevant experience, as indicated in their responses to the questions in Section I of the JAQ.

An overview of these results is provided below:

#### **Incumbent Sample:**

- Almost all incumbents (98%) are permanent full time employees.
- Approximately half of the incumbents work primarily on the day shift, with an additional one-third from the swing shift.
- Incumbents had a range of tenure both in their facility and as a JCO; however, the most frequently endorsed length of time in their present assignment, as a JCO, and in their current facility was 1 – 3 years.
- A majority of incumbents are male.
- 34% of the incumbents are Caucasian and 30% are between the ages of 31 and 40.
- Nearly all incumbents had completed high school, with slightly more than 75% of the incumbents obtaining a post-high school degree.
- Approximately two-thirds of the incumbents work in a Juvenile Hall.
- Approximately two-thirds of the incumbents work in a facility with both male and female juveniles.

#### **Supervisor Sample:**

- Not surprisingly, supervisors had more experience than incumbents in corrections, with more than half (53%) of the supervisor sample having at least 15 years of experience.
- Approximately one-third of the supervisors have 1 – 3 years experience supervising JCOs, while an additional 40% have between 3 and 10 years of experience as a supervisor.
- Approximately two-thirds of the supervisors directly oversee the work of fewer than 20 JCOs, while an additional 25% supervise 20 – 49 JCOs.
- All supervisors are permanent full time employees, with more than half (60%) working the day shift.
- Similar to incumbent JCOs, the majority of JCO supervisors are male (74%).

**Table 11**  
**Characteristics of the Incumbent JAQ Sample:**  
**Demographic/Background Information**

Characteristic	Frequency	Percentage
<b>Length of Time at Current Facility as a JCO</b>		
• Less than 1 year	43	11.7%
• 1 to 3 years	162	44.3%
• More than 3 years to 5 years	56	15.3%
• More than 5 years to 10 years	42	11.5%
• More than 10 years to 15 years	40	10.9%
• More than 15 years	18	4.9%
• Not Reported	5	1.4%
<b>Years of Total Experience as a JCO</b>		
• Less than 1 year	20	5.5%
• 1 to 3 years	125	34.2%
• More than 3 years to 5 years	61	16.7%
• More than 5 years to 10 years	62	16.9%
• More than 10 years to 15 years	56	15.3%
• More than 15 years	36	9.8%
• Not Reported	6	1.6%
<b>Length of Time at Present Assignment</b>		
• Less than 6 months	48	13.1%
• 6 months to 1 year	64	17.5%
• 1 to 3 years	154	42.1%
• More than 3 years to 5 years	28	7.7%
• More than 5 years to 10 years	31	8.5%
• More than 10 years to 15 years	19	5.2%
• More than 15 years	13	3.6%
• Not Reported	9	2.5%
<b>Work Status</b>		
• Permanent Full Time	358	97.8%
• Permanent Part Time	3	<1%
• Other	1	<1%
• Not Reported	4	1.1%
<b>Shift Primarily Worked</b>		
• Day	177	48.4%
• Swing	134	36.6%
• Night/Graveyard	49	13.4%
• Not Reported	6	1.6%
<b>Type of Schedule Worked</b>		
• 12 hours per day	26	7.1%
• 10 hours per day	27	7.4%
• 9 hours per day	6	1.6%
• 8 hours per day	259	70.8%
• Mixed shift	18	4.9%
• Other	26	7.1%
• Not Reported	4	1.1%



**Table 11 Contd.**  
**Characteristics of the Incumbent JAQ Sample:**  
**Demographic/Background Information**

Characteristic	Frequency	Percentage
<b>Gender</b>		
• Male	232	63.9%
• Female	128	35%
• Not Reported	6	1.6%
<b>Racial/Ethnic Group</b>		
• African American	108	29.5%
• Asian	11	3%
• Pacific Islander	5	1.4%
• Caucasian	126	34.4%
• Native American	1	<1%
• Hispanic	86	23.5%
• Other	19	5.2%
• Not Reported	10	2.7%
<b>Age</b>		
• < 21	0	0%
• 21 – 30	95	26%
• 31 – 40	109	29.8%
• 41 – 50	61	16.7%
• 51 – 60	32	8.7%
• 61 +	3	<1%
• Not Reported	66	18%
<b>Education</b>		
• No degree	8	2.2%
• High school/GED	56	15.3%
• Technical/Vocational degree	8	2.2%
• Associate's degree	101	27.6%
• Bachelor's degree	166	45.4%
• Master's degree	12	3.3%
• Other	10	2.7%
• Not Reported	5	1.4%

**Table 12**  
**Characteristics of the Supervisor JAQ Sample:**  
**Demographic/Background Information**

Characteristic	Frequency	Percentage
<b>Length of time at Current Facility</b>		
• Less than 1 year	27	13.8%
• More than 1 year to 3 years	43	22.1%
• More than 3 years to 5 years	35	17.9%
• More than 5 years to 10 years	16	8.2%
• More than 10 years to 15 years	33	16.9%
• More than 15 years	38	19.5%
• Not Reported	3	1.5%
<b>Years of Experience in Corrections</b>		
• Less than 1 year	1	<1%
• More than 1 year to 3 years	5	2.6%
• More than 3 years to 5 years	13	6.7%
• More than 5 years to 10 years	18	9.2%
• More than 10 years to 15 years	48	24.6%
• More than 15 years	104	53.3%
• Not Reported	6	3.1%
<b>Number of JCOs Currently Supervising</b>		
• 0	2	1%
• 1 – 19	128	65.6%
• 20 – 49	45	23.1%
• 50 – 79	7	3.6%
• 80 – 99	5	2.6%
• 100 – 180	4	2.1%
• Not Reported	4	2.1%
<b>Length of Time Supervising JCOs</b>		
• Less than 3 months	14	7.2%
• 3 months to 6 months	8	4.1%
• 6 months to 1 year	23	11.8%
• More than 1 year to 3 years	67	34.4%
• More than 3 years to 5 years	29	14.9%
• More than 5 years to 10 years	24	12.3%
• More than 10 years	29	14.9%
• Not Reported	1	<1%
<b>Work Status</b>		
• Permanent Full Time	195	100%
<b>Shift Primarily Worked</b>		
• Day	117	60%
• Swing	56	28.7%
• Night/Graveyard	18	9.2%

**Table 12**  
**Characteristics of the Supervisor JAQ Sample:**  
**Demographic/Background Information**

Characteristic	Frequency	Percentage
<b>Type of Schedule Worked</b>		
• 12 hours per day	18	9.2%
• 10 hours per day	38	19.5%
• 9 hours per day	12	6.2%
• 8 hours per day	78	40%
• Mixed Shift	19	9.7%
• Other	28	14.4%
• Not Reported	2	1%
<b>Gender</b>		
• Male	144	73.8%
• Female	47	24.1%
• Not Reported	4	2.1%
<b>Racial/Ethnic Group</b>		
• African American	66	33.8%
• Asian	0	-
• Pacific Islander	4	2.1%
• Caucasian	79	40.5%
• Native American	4	2.1%
• Hispanic	27	13.8%
• Other	7	3.6%
• Not Reported	8	4.1%
<b>Age</b>		
• < 21	0	-
• 21 – 30	7	3.6%
• 31 – 40	38	19.5%
• 41 – 50	60	30.8%
• 51 – 60	52	26.7%
• 61 +	4	2.1%
• Not Reported	34	17.4%
<b>Education</b>		
• No degree	2	1%
• High school/GED	10	5.1%
• Technical/Vocational degree	1	<1%
• Associate's degree	34	17.4%
• Bachelor's degree	111	56.9%
• Master's degree	23	11.8%
• Other	10	5.1%
• Not Reported	4	2.1%

**Table 13**  
**Characteristics of the Incumbent JAQ Sample:**  
**Agency/Facility Information**

Characteristic	Frequency	Percentage
<b>Type of Agency</b>		
• Probation	366	100%
<b>Type of Facility</b>		
• Ranch	20	5.5%
• Camp	65	17.8%
• Juvenile Hall	236	64.5%
• Alternative to Custody	15	4.1%
• Other	24	6.6%
• Not Reported	6	1.6%
<b>Level of Security</b>		
• Minimum	72	19.7%
• Medium	80	21.9%
• Maximum	75	20.5%
• Mixed	128	35%
• Not Reported	11	3%
<b>Gender of Juveniles in Facility</b>		
• Male	111	30.3%
• Female	14	3.8%
• Both	238	65%
• Not Reported	3	<1%
<b>Carry Firearm as Part of Job</b>		
• Yes	3	<1%
• No	356	97.3%
• Not Reported	7	1.9%
<b>Agency Size</b>		
• Small	23	6.3%
• Medium	134	36.6%
• Large	209	57.1%
<b>Agency Region</b>		
• Bay	60	16.4%
• Central	35	9.6%
• North	10	2.7%
• Sacramento	32	8.7%
• South	229	62.6%

**Table 14**  
**Characteristics of the Supervisor JAQ Sample:**  
**Agency/Facility Information**

Characteristic	Frequency	Percentage
<b>Type of Agency</b>		
• Probation	195	100%
<b>Type of Facility</b>		
• Ranch	6	3.1%
• Camp	50	25.6%
• Juvenile Hall	124	63.6%
• Alternative to Custody	7	3.6%
• Other	3	1.5%
• Not Reported	5	2.6%
<b>Level of Security</b>		
• Minimum	36	18.5%
• Medium	35	17.9%
• Maximum	52	26.7%
• Mixed	66	33.8%
• Not Reported	6	3.1%
<b>Gender of Juveniles in Facility</b>		
• Male	59	30.3%
• Female	7	3.6%
• Both	128	65.6%
• Not Reported	1	<1%
<b>Carry firearm as part of job?</b>		
• Yes	3	1.5%
• No	189	96.9%
• Not Reported	3	1.5%
<b>Agency Size</b>		
• Small	25	12.8%
• Medium	54	27.7%
• Large	116	59.5%
<b>Agency Region</b>		
• Bay	24	12.3%
• Central	13	6.7%
• North	10	5.1%
• Sacramento	19	9.7%
• South	129	66.2%

## Descriptive Statistics

The first step in the analysis was to generate simple descriptive statistics (e.g., means, standard deviations, and frequency distributions) for the ratings for each task, equipment item, and KSAO to ensure that the data appeared reasonable. A summary of these statistics, averaged across tasks, equipment, and KSAOs, is provided in Table 15. Highlights of these results are presented below:

### **Task Ratings:**

- On average, 83% of incumbents reported that each task is part of the job, while 85% of the supervisors indicated that each task is performed by JCOs in their agency.
- The mean task importance rating was 3.6 (on a 5-point scale, based on those indicating that the task is relevant to JCO work), with a standard deviation (SD) of 0.58.
- The mean task frequency rating was 5.2 (on a 9-point scale, based on those who reported performing the task); the SD was 2.00.

### **KSAO Ratings:**

- On average, 97% of supervisors indicated that each KSAO is relevant to the JCO job.
- The mean KSAO importance rating was 3.7 (on a 5-point scale, based on those indicating that the item is relevant to JCO work), with an SD of 0.46.
- On average, 48% of supervisors rated each KSAO as necessary before hire (of those indicating that the item is relevant to JCO work).

### **Equipment Ratings:**

- On average, 39% of incumbents reported that each equipment item is used on the job.
- The equipment frequency rating was 1.6 (on a 3-point scale, based on those who reported using the equipment); the SD was 0.41.

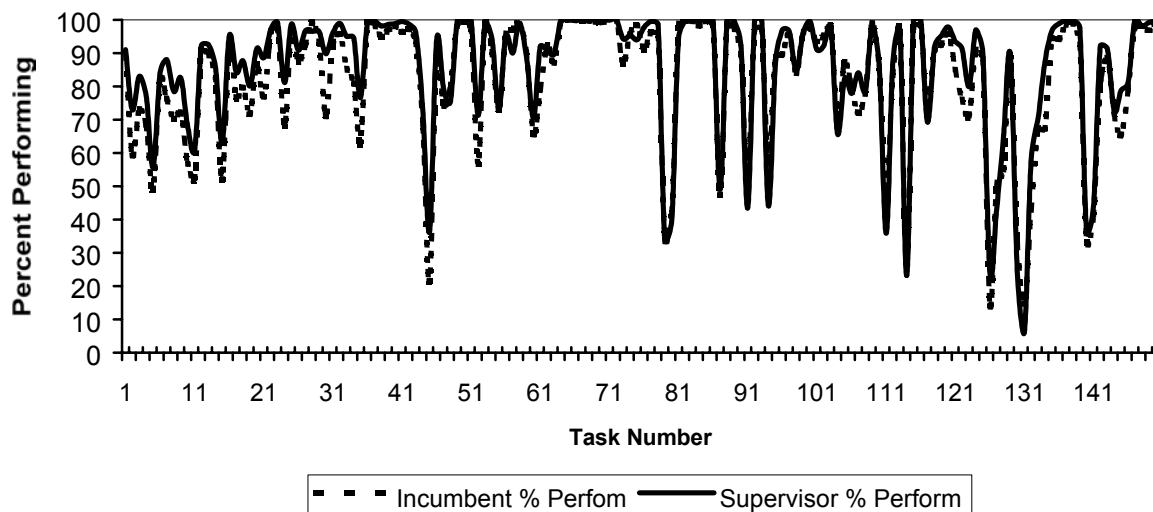
**Table 15**  
**Summary of Descriptive Statistics – JCO JAQs**

Characteristic	Average	Standard Deviation	Minimum	Maximum
<b>Tasks (N=294)</b>				
Percent of incumbents rating task as part of the job	82.88	19.00	14.10	100.00
Frequency rating by incumbents	5.22	2.00	1.21	8.73
Percent of supervisors rating task as performed by JCOs in their agency	85.42	18.76	6.30	100.00
Importance rating by supervisors	3.63	.58	2.03	4.76
<b>KSAOs (N=116)</b>				
Percent of supervisors rating the ability/characteristic as used by JCOs	97.40	8.23	32.0	100.00
Importance rating by supervisors	3.68	.46	2.31	4.56
Percent of supervisors rating ability/characteristic as necessary before hire	47.5	33.79	3.0	93.1
<b>Equipment (N=71)</b>				
Percent of incumbents rating equipment item as used on the job	39.30	30.33	.40	97.9
Frequency rating by incumbents	1.63	.41	1.00	2.62

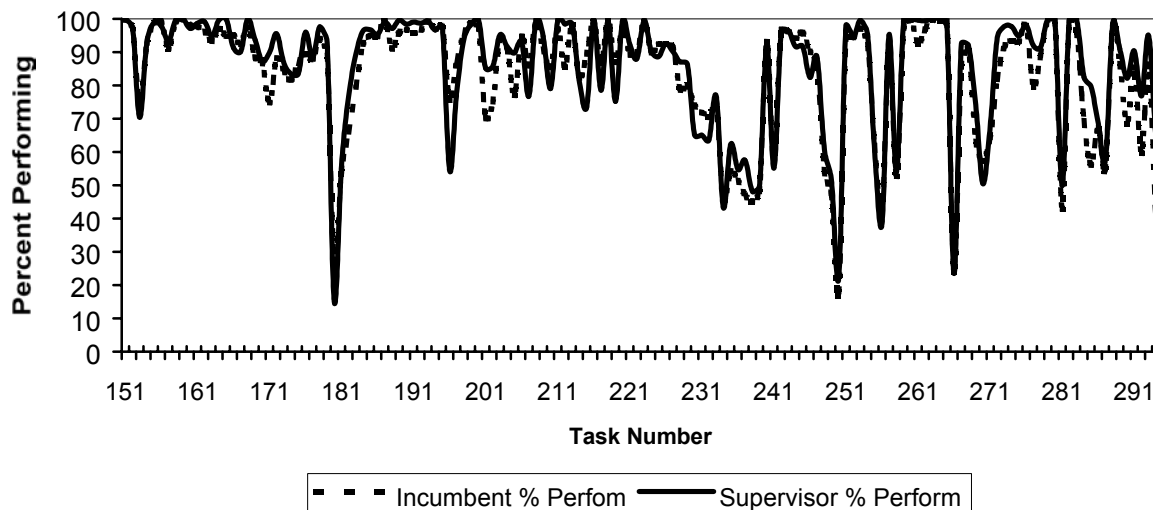
## Similarity Between Incumbent and Supervisor Ratings

An analysis was conducted to examine the agreement between JCO incumbents and supervisors in their ratings of the 294 job tasks. Specifically, a Pearson product-moment correlation was computed between the mean percent of incumbents performing each task and the mean percent of supervisors indicating that the task is performed by JCOs; (i.e., the task mean was the unit of analysis). Overall, there was a high level of agreement between incumbents and supervisors in their endorsements of the various tasks, as evidenced by a correlation of .95. This finding indicates that incumbents and supervisors were in close agreement with respect to their relative rankings of the extent to which each task is performed as part of the JCO job. Figure 1 (a and b) illustrates the pattern of agreement across tasks.

**Figure 1a**  
**Comparison of JCO Incumbent and JCO Supervisor Ratings**  
**Tasks 1-150**



**Figure 1b**  
**Comparison of JCO Incumbent and JCO Supervisor Ratings**  
**Tasks 151-294**



## Identification of Core Job Requirements

As stated earlier, the purpose of the job analysis was to identify the work performed and the KSAOs required for successful performance for JCOs statewide. To this end, the obtained incumbent and supervisor JAQ data were analyzed to identify the common “core” set of tasks, equipment, and KSAOs. To be considered “core,” a job requirement (e.g., a task, KSAO, or equipment item) had to meet minimum rating criteria for both the entire group of respondents, as well as within each of the three agency size “subgroups” (e.g., small, medium, and large agencies). The vast majority of ratings far exceeded these minimum criteria.

In general, to be considered core, the ratings from respondents had to indicate that the task is performed in at least half of the JCO jobs statewide. A KSAO was considered core if, across the state, it was rated as important for successful job performance and necessary at the time of entry into the JCO job. As noted earlier, the unit of analysis was the agency mean rating of each KSAO. This enabled a balanced representation of the various sizes of agencies throughout the state (thus, avoiding overrepresentation of the larger agencies in the sample).

### Core Criteria

The core criteria were established in consideration of prior job analyses and the goals of the present study. The specific criteria for identifying core job requirements are outlined below.

**Tasks.** Incumbent and supervisor JAQ ratings were considered jointly in defining the criteria for core JCO work. In order to be considered a core task, the JAQ ratings for that item had to meet criteria for the total sample (either 1, or 2A and 2B) and criteria within each of the agency size categories (either 3, or 4A and 4B), as outlined below:

#### Criteria for the Total Sample:

1. At least 50% of the incumbents indicated that the task is a part of their job (rated the task frequency at least 1.0, “This task is part of the job”), OR
- 2A. At least 50% of the supervisors indicated that the JCOs they supervise perform the task (rated the task importance at least 1.0, “Of little importance,”); AND
- 2B. The average importance rating across all supervisors was at least 3.0 (“Important”).

#### Criteria Within Agency Size Categories:

3. At least 33% of the incumbents in each subgroup indicated that the task is part of the job (rated the task a 1.0 or higher on the Frequency scale), OR
- 4A. At least 33% of the supervisors in each subgroup indicated that the JCOs they supervise perform the task (rated the task 1.0 or higher on the Importance scale); AND
- 4B. The average importance rating across all supervisors was at least 2.0 (“Of Some Importance”).

**KSAOs.** In order for a KSAO to be considered “core”, it had to meet all six of the conditions listed below:

#### Criteria for the Total Sample:

1. At least 50% of the supervisors rated the KSAO at least 1.0 on the Importance rating scale (indicating that the KSAO was of any importance for JCO work); AND



2. The average importance rating across all supervisors was 3.0 (“Important”); AND
3. At least 50% of the supervisors indicated that the KSAO was necessary before hire; AND

Criteria Within Agency Size Categories:

4. At least 33% of the supervisors in each subgroup rated the KSAO at least 1.0 on the Importance rating scale (e.g., rated the KSAO as of any importance for JCO work); AND
5. The average importance rating across all supervisors in each subgroup was 2.0 (“of some importance”); AND
6. At least 33% of the supervisors in each subgroup indicated that the KSAO was necessary before hire.

**Equipment.** Equipment items were considered core if their ratings met the following two conditions:

Criteria for the Total Sample:

1. At least 50% of all incumbents rated the frequency of use at least 1.0 (indicating that they use the equipment at least “occasionally”) AND

Criteria Within Agency Size Categories:

2. At least 33% of the incumbents in each subgroup rated the frequency of use at least 1.0.

## **Results**

The above criteria were established via an iterative process in which initial core criteria were established, JAQ data were analyzed and lists of core tasks and KSAOs were reviewed for reasonableness. After making very slight adjustments, the above core criteria were established and applied to the JAQ ratings. Table 16 summarizes the numbers of tasks, KSAOs, and equipment items that were identified as core and non-core.

Fifty-two of the 116 KSAOs were rated as core by the total sample and all three subgroups. Nearly all of the core KSAOs were abilities or other characteristics, in fact, only one of the 50 knowledges and none of the skills included on the JAQ were rated as core. A majority of the tasks (272 of 294, or 93%) were rated as core. More than half of the non-core tasks were concentrated among two major activities (Record Keeping and Report Writing, and Physically Demanding Tasks). Only a little more than one-third of the equipment items were rated as core, with all non-core items rated as such by both the entire sample and at least one subgroup.

Detailed statistical reports summarizing the ratings of each task, KSAO, and equipment item, including designations of core items, are presented in Appendices D – H. These summary reports contain means of agency mean frequency and importance ratings, the mean of agency percentages of JCOs performing each task/using each equipment item, and the mean of agency percentages of supervisors indicating that each KSAO is necessary before hire. The reports in the appendices include an overall report with results aggregated across all agencies, as well as reports displaying separate analyses by agency size.

**Table 16**  
**Number of Tasks/KSAOs/Equipment**  
**Identified as Core and Non-Core**

Job Requirement	Number of Items					
	Total JAQ	Core	Non-Core			
	Initial Number	Remaining Core	Total Sample	Small Agencies	Medium Agencies	Large Agencies
<b>Tasks</b>	294	272	22	6	8	7
<b>Knowledge and Skills</b>	63	1	6	56	53	56
<b>Abilities/Other Characteristics*</b>	53	51	2	0	0	0
<b>Equipment</b>	71	26	45	34	36	42

\*Includes 18 physical/psychomotor abilities.

### Linking Core Tasks to Critical KSAOs

To further document that the identified core KSAOs are in fact directly related to the performance of the core tasks, and to obtain contextual information regarding the KSAOs and how they are used in JCO work, formal linkages were made between the JCO work activities and the KSAOs in a focus group meeting with SMEs. (While the equipment items are not treated in this section, they provide useful contextual information for performance of certain tasks.) The procedures and results of this meeting are summarized below.

#### **Focus Group Meeting**

A total of seven SMEs, all of whom were JCO supervisors, participated in a one-day meeting at the Board of Corrections office in Sacramento, California on March 5, 2002. SMEs were chosen by BOC personnel to represent a variety of agency sizes and regions. The list of SMEs, as well as relevant demographic information, is summarized in Appendix I.

During the meeting, SMEs were first given an overview of the project and progress to-date. Next, they were asked to review the lists of core tasks (grouped under their corresponding major activity) and KSAOs and to identify any areas needing clarification or explanation.

SMEs then completed a series of ratings for each KSAO that had been identified as important during the job analysis. Specifically, SMEs were instructed to identify three tasks within each major activity for which a KSAO was considered to be critical. For the purpose of these linkages, the following definition of “critical” was used:

*“A KSAO is critical if it plays a major role in the performance of the task and is necessary for successful performance. Without the KSAO, successful performance of the task would be extremely difficult or impossible.”*

After reviewing the definition of critical, SMEs were asked to independently review the first KSAO, Listening Comprehension, and the core tasks in the first major activity (Booking, Receiving, and Releasing) and to select three tasks, if possible, for which the KSAO was critical. The entire group then discussed ratings and clarified any questions. The SMEs then independently completed linkages between the task statements for the next major activity and Listening Comprehension; these linkages were then discussed. At this point, with all SMEs using the same frame of reference to make their judgments, they were instructed to continue making their ratings independently.

During the meeting, the PSI facilitators periodically checked on progress and answered any questions raised by participants. Approximately mid-way through the rating process, half of the SMEs were instructed to complete ratings from the back of the list and move forward, while the other half continued rating in the original order. As a result, all of the KSAOs were reviewed by at least four SMEs; and each SME reviewed between 61% and 100% of the KSAO-work activity linkage rating combinations.

### **Linkage Results**

The percentage of SMEs linking at least one task within each major activity to each KSAO was computed. A major activity was considered to be linked to a KSAO if at least two-thirds of the SMEs who reviewed the major activity identified at least one task in the major activity to which the KSAO was critical for job performance.

Table 17 summarizes the linkages between KSAOs and major activities that were made by the SMEs. An “X” in the box where the KSAO and major activity intersect indicates that at least one task in the major activity was linked to the KSAO by two-thirds of the SMEs.

Appendix J lists the specific tasks within each major activity that were linked to each KSAO. While the listed tasks do not represent all possible linkages to each KSAO, they provide specific examples of cases where each KSAO is critical for job success and illustrate the pervasive role the core KSAOs play in the performance of the JCO job.

**Table 17**  
**Summary of Linkages Between**  
**KSAOs and Major Work Activities**

KSAO	Major Activities*														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Listening Comprehension	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Oral Communication	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Reading Comprehension	X	X	X	X	X		X	X	X	X	X			X	X
Written Communication	X	X		X	X		X	X	X					X	X
Information Ordering	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Reasoning	X	X		X		X	X	X	X	X	X	X		X	X
Basic Math	X			X	X	X		X	X			X		X	X
Vigilance	X		X	X	X	X		X	X	X		X	X	X	X
Selective Attention	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Perceptual Speed and Accuracy	X	X	X	X		X	X	X	X	X				X	
Multi-tasking	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Applied Memorization	X	X	X	X	X		X	X	X		X	X		X	X
Strength											X		X		
Flexibility			X	X	X	X			X		X		X	X	
Stamina				X							X		X		

**Table 17**  
**Summary of Linkages Between**  
**KSAOs and Major Work Activities**

KSAO	Major Activities*														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Assertiveness	X		X	X	X	X	X		X	X	X	X	X	X	X
Emotional Control	X	X		X	X		X		X		X	X	X	X	X
Stress Tolerance	X		X	X		X	X	X	X	X	X	X	X	X	X
Attention to Detail	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Self-Assurance	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Decisiveness	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Friendly Disposition	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Adaptability	X	X	X	X	X	X	X		X	X	X		X	X	
Positive Attitude	X	X	X	X	X	X	X		X	X	X	X		X	X
Team Orientation	X	X		X	X	X	X	X	X		X	X	X	X	X
Interpersonal Sensitivity	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Gregariousness	X	X	X	X	X	X	X		X	X		X		X	X
Dependability	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Attitude Toward Safety	X		X	X	X	X		X	X	X	X	X	X	X	X
Integrity	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Conformance to Rules and Regulations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

**Table 17**  
**Summary of Linkages Between**  
**KSAOs and Major Work Activities**

KSAO	Major Activities*														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Tolerance of Work Conditions				X					X	X	X		X	X	
Achievement Motivation/Initiative	X		X	X	X				X	X	X	X	X	X	
Willingness to Learn	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Objectivity/Tolerance	X	X	X	X	X	X	X		X	X		X	X	X	X
Knowledge of hygiene and health practices	X	X		X		X		X			X	X		X	

- A. Booking, Receiving, and Releasing
- B. Admission/Orientation/Classification
- C. Escorting/Transporting
- D. Supervising Juveniles – Daily Care and Custody
- E. Supervising Juveniles – Recreational or Leisure Time Activities
- F. Supervising Juveniles – Work Details
- G. Casework/Counseling
- H. Record Keeping and Report Writing
- I. Searching and Securing
- J. Supervising Non-Detainee Movement and Visitors
- K. Emergencies
- L. Communicating
- M. Physically Demanding Tasks
- N. Miscellaneous Tasks
- O. Supervising other Detention Facility Personnel

## SUMMARY AND CONCLUSIONS

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The responsibilities and requirements of the Juvenile Corrections Officer position in the state of California were identified and defined through a statewide job analysis, in which 24 local corrections agencies participated.

The job analysis was comprehensive and included a variety of data sources and techniques. Initial lists of tasks, equipment, and KSAOs were developed based on a review of the literature, existing job descriptions, the results of previous job analyses, and site visits/job observations. The lists were reviewed and refined in a focus group meeting with job incumbents and supervisors, reviewed by a second group of SMEs, and verified by BOC personnel. The lists were incorporated into two job analysis questionnaires, which were sent to a representative sample of incumbents and supervisors throughout the state. An overall response rate of 89% was achieved, with 99% of the incumbent and supervisor questionnaires returned used in the data analyses.

Ratings of individual tasks and KSAOs served as the foundation and focus of subsequent analyses. Results indicated that the tasks in the questionnaire are indeed descriptive of the JCO job, and all of the KSAOs included in the questionnaire for use in this project are important for successful performance and needed upon entry into the job.

To further solidify the link between the KSAOs and activities performed on the job, and to provide a contextual framework for the use of KSAOs in a selection system, a group of JCO supervisors formally identified specific work tasks for which each KSAO was critical. These ratings provided further support for the importance of all KSAOs identified through the JAQ.

A total of 36 KSAOs have been shown to be necessary at entry, important for successful job performance, and related to core and critical major activities and tasks. Of these, 35 abilities and other characteristics will be considered for inclusion in the next phase of the project - the development of an examination to be used in selecting entry-level Juvenile Corrections Officers.

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